

MCF 3M

Review Day 3

- Financial Worksheet Review
- Quadratics Word Problems

Jun 7-8:41 AM

p255 q9

$$C(t) = 0.2t^2 - 10t + 650$$

Minimize cost $\rightarrow \therefore$ vertex \rightarrow Complete the Square

$$C(t) = 0.2(t^2 - 50t) + 650$$

$$C(t) = 0.2 \left[t^2 - 50t + 625 - 625 \right] + 650$$

$$C(t) = 0.2 \left[(t - 25)^2 - 625 \right] + 650$$

$$C(t) = 0.2(t - 25)^2 - 125 + 650$$

$$C(t) = 0.2(t - 25)^2 + 525$$

$$(25, 525)$$

At 25 cars the cost will be \$525.

$$\frac{525}{25} \rightarrow \$21 \text{ per car}$$

Jun 7-8:48 AM

p256 q738

$$h(t) = -4.9t^2 + 19.6t + 0.5$$

$$h(t) = -4.9(t^2 - 4t) + 0.5$$

$$h(t) = -4.9 \left[t^2 - 4t + 4 - 4 \right] + 0.5$$

$$h(t) = -4.9(t - 2)^2 + 20.1$$

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At 2 sec the ball reaches maximum height of 20.1m.

$$h(t) = -4.9t^2 + 19.6t + 0.5$$

$$h(t) = -4.9(1)^2 + 19.6(1) + 0.5$$

$$h(t) = -4.9 + 19.6 + 0.5$$

$$h(t) = 15.2$$

The ball is at 15.2m at 1 sec.

Jun 7-9:07 AM

$$20.5 - \$200$$

$$20.5 \times 200 = \$4100$$

$$4000 \times 0.06$$

$$249000 - 240000 = 225000$$

$$i = 3.75 \Rightarrow 0.0375/12 = 0.003125$$

$$n = 5 \times 26 = 130$$

$$FV = 44000$$

$$R = \frac{A(i)}{(1+i)^n - 1}$$

Jun 7-9:44 AM

$$A = 6x^2 - 8$$

$$A = 2(3x^2 - 4)$$

$$4x^2 - 8$$

$$(2x - 3)(2x + 3)$$

$$16a^2 - 24a + 9$$

$$(4a - 3)^2$$

$$x^8 - 256$$

$$(x^4 - 16)$$

$$(x^4)(x^4)$$

Jun 7-10:01 AM